UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,526	03/30/2007	Francesco Nicastro	P/2528-41	2065

2352 7590 09/28/2007

OSTROLENK FABER GERB & SOFFEN
1180 AVENUE OF THE AMERICAS
NEW YORK, NY 100368403

EXAMINER	
SHECHTMAN, SEAN P	

ART UNIT	PAPER NUMBER
2125	

MAIL DATE	DELIVERY MODE
09/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,526	NICASTRO, FRANCESCO	
	Examiner	Art Unit	
	Sean P. Shechtman	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 30 March 2007.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-46 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-46 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 24 May 2006 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐. Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 5/24/06.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-46 are presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 1, a claim in which both an apparatus and the method steps of using the apparatus is indefinite under 35 USC 112, second paragraph. This type of claim is indefinite because it fails to positively recite the boundaries sought for protection. The metes and bounds of the claim cannot be determined because it is unclear as to which category of subject matter is sought for protection, i.e., the method or the apparatus.

Claims 4, 45 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Claim 46 provides for the use of predictive maintenance parameters, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process

applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 46 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4, 6-25, 33-42, 44-46, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,587,925 to Li (hereinafter referred to as Li) in view of U.S. Pub. No. 2003/0126963 to Davis, II et al (hereinafter referred to as Davis).

Referring to claim 1, Li teaches a method for predictive maintenance of a cutting unit of an automatic machine the cutting unit comprising at least one cutting member cooperating cyclically with a counter-member to cut an article fed between the cutting member and the counter-member (Col. 3, lines 9-47, file, stroke, bar, actuator 17); the method comprising determining, with a given frequency (Col. 4, lines 25, number of strokes), the value of a characteristic quantity of the cutting unit related to contact between the cutting member and the counter-member (Col. 3, lines 26-48; Col. 4, lines 1-10, the examiner respectfully submits that

the coming together of file and actuator 17 to the state or condition of immediate proximity is contact); and the method being characterized by determining a first curve for extrapolating the time pattern of the characteristic quantity value (Fig. 4; Col. 5, lines 1-34); and determining maintenance work on the cutting unit when the first curve is outside a given acceptance range (Col. 7, lines 51-58).

4) A method as claimed in claim 1, wherein the characteristic quantity is the force with which the cutting member contacts the counter-member (Figs. 5, 7; Col. Col. 7, line 64 – Col. 8, line 65).

6) A method as claimed in claim 1, wherein the first curve is an exponential curve (Col. 5, lines 14; Fig. 4).

7) A method as claimed in claim 1, wherein the acceptance range comprises a time-variable lower limit (Figs. 5, Col. 6, lines 19-38, 30B).

8) A method as claimed in claim 7, wherein the lower limit of the acceptance range increases with time (Col. 8, lines 6-8).

9) A method as claimed in claim 7, wherein the lower limit of the acceptance range is defined by a second curve (Fig. 5, 30B).

10) A method as claimed in claim 9, wherein the second curve is an exponential curve (Fig. 5, 30B).

11) A method as claimed in claim 9, wherein the second curve is determined experimentally as the curve which best interpolates the set of relative minimum points of the characteristic quantity value recorded just before maintenance work on the cutting unit (Col. 7, lines 64 – Col. 8, line 26).

12) A method as claimed in claim 1, wherein the acceptance range comprises a time-variable upper limit (Fig. 5, 30A).

13) A method as claimed in claim 12, wherein the upper limit of the acceptance range increases with time (Col. 8, lines 6-8).

14) A method as claimed in claim 12, wherein the upper limit of the acceptance range is defined by a third curve (Fig. 5, 30A).

15) A method as claimed in claim 14, wherein the third curve is an exponential curve (Fig. 5, 30A).

16) A method as claimed in 14, wherein the third curve is determined experimentally as the curve which best interpolates the set of relative maximum points of the characteristic quantity value recorded just after maintenance work on the cutting unit (Col. 7, lines 64 – Col. 8, line 26).

17) A method as claimed in claim 1, wherein the characteristic quantity value is determined during a first time interval (Col. 3, lines 10-26) and with a frequency given by a second time interval (Col. 4, lines 25).

18) A method as claimed in claim 17, wherein the first time interval is substantially 10 seconds, and the second time interval is substantially 10 minutes (Col. 3, lines 10-26, Col. 4, line 25).

19) A method as claimed in claim 1, wherein the first curve is determined using only the characteristic quantity values following previous maintenance work on the cutting unit (Col. 7, lines 52-57).

39) A method as claimed in claim 1, wherein, if the first curve (14) is outside the acceptance range immediately following maintenance work on the cutting unit (1), this means the cutting member (10) needs changing as opposed to adjusting (Col. 7, lines 52-58).

40. A method as claimed in claim 1, wherein, if the first curve (14) is close to the acceptance range immediately following maintenance work on the cutting unit (1), this means the cutting member (10) needs changing as opposed to adjusting (Col. 7, lines 52-58).

41) A method as claimed in claim 40, wherein the acceptance range comprises a lower limit increasing with time and defined by a second curve; if the first curve (14) is close to the second curve (15) immediately following maintenance work on the cutting unit (1), this means the cutting member (10) needs changing as opposed to adjusting (Col. 7, lines 52-58).

46) A method as claimed in claim 1, wherein predictive maintenance parameters are used to improve design of the cutting unit, comprising, non-limitatively, the materials for cutting, and the form or profile or action of the cutting members (Col. 1, lines 53-67).

Referring to claim 1, Li teaches all of the limitations set forth above, however fails to teach the maintenance work is programmed. Referring to claims 20-25, 33-38, 42, 44, 45, Li teaches all of the limitations set forth above, however fails to teach wherein performance of maintenance work on the cutting unit (1) is indicated by a step of a value greater than a given first threshold value in the pattern of the characteristic quantity values (V); wherein maintenance work on the cutting unit (1) is only actually programmed when the time lapse since previous maintenance work on the cutting unit exceeds a given second threshold value; wherein the second threshold value is fixed or variable; wherein the second threshold value equals a given

fraction of the time lapse between the last and last but one maintenance work on the cutting unit; wherein maintenance work on the cutting unit (1) comprises adjusting the position of the cutting member (10) with respect to the counter-member (11); a control unit (13) making an automatic power adjustment of the position of the cutting member with respect to the counter-member (11), as a function of the first curve (14); wherein the control unit (13) determines the value of the adjustment to the position of the cutting member (10) with respect to the counter-member (11), as a function of the value of the first curve when performing the maintenance work; wherein the control unit (13) determines the value of the adjustment to the position of the cutting member (10) with respect to the counter-member (11), as a function of the value of the first curve when performing the maintenance work, and as a function of the location of the value of the first curve with respect to the acceptance range; wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of environmental and operating conditions of the cutting unit; wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of the operating temperature of the cutting unit (1); wherein, in determining the value (V) of the characteristic quantity of the cutting unit a compensation is made as a function of the operating speed of the cutting unit; wherein various operating characteristics of the cutting unit (1) are checked to determine any damage to the mechanical components of the cutting unit (1), and so determine whether variations in the values (V) of the characteristic quantity are produced by actual wear of the cutting member (10) or by damage to the mechanical components of the cutting unit.

However, referring to claim 1, Davis teaches maintenance work is programmed (Abstract; Page 2, paragraph 18). Referring to claims 20-25, 33-38, 42, 44, 45, Davis teaches wherein performance of maintenance work on the cutting unit (1) is indicated by a step of a value greater than a given first threshold value in the pattern of the characteristic quantity values (V); wherein maintenance work on the cutting unit (1) is only actually programmed when the time lapse since previous maintenance work on the cutting unit exceeds a given second threshold value; wherein the second threshold value is fixed or variable; wherein the second threshold value equals a given fraction of the time lapse between the last and last but one maintenance work on the cutting unit; wherein maintenance work on the cutting unit (1) comprises adjusting the position of the cutting member (10) with respect to the counter-member (11); a control unit (13) making an automatic power adjustment of the position of the cutting member with respect to the counter-member (11), as a function of the first curve (14); wherein the control unit (13) determines the value of the adjustment to the position of the cutting member (10) with respect to the counter-member (11), as a function of the value of the first curve when performing the maintenance work; wherein the control unit (13) determines the value of the adjustment to the position of the cutting member (10) with respect to the counter-member (11), as a function of the value of the first curve when performing the maintenance work, and as a function of the location of the value of the first curve with respect to the acceptance range; wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of environmental and operating conditions of the cutting unit; wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of the operating temperature of the cutting unit (1); wherein, in determining the value

(V) of the characteristic quantity of the cutting unit a compensation is made as a function of the operating speed of the cutting unit; wherein various operating characteristics of the cutting unit (1) are checked to determine any damage to the mechanical components of the cutting unit (1), and so determine whether variations in the values (V) of the characteristic quantity are produced by actual wear of the cutting member (10) or by damage to the mechanical components of the cutting unit (Page 1, paragraph 12 –Page 2, paragraph 18).

Li and Davis are analogous art because they are from the same field of endeavor, cutting machine monitoring.

At time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Li with the programmed maintenance of Davis.

The suggestion/motivation would have been because Davis teaches adaptive control of a cutting machine that can include a visual or audio means to signal the die cutter operator to adjust the cutter. Furthermore, Davis teaches output devices could include a means to communicate that the operation is operating within acceptable parameters and predict the time or number or cuts until cutting failure occurs, thereby increasing reliability (Page 2, paragraph 18).

5. Claims 1-5, 17-38, 42-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2003/0015076 to Tanaka et al (hereinafter referred to as Tanaka) in view of U.S. Pat. No. 4,031,368 to Colding et al (hereinafter referred to as Colding).

Referring to claim 1, Tanaka teaches a method for predictive maintenance of a cutting unit of an automatic machine the cutting unit comprising at least one cutting member cooperating cyclically with a counter-member to cut an article fed between the cutting member and the

counter-member (Page 2, paragraph 33-37); the method comprising determining, with a given frequency, the value of a characteristic quantity of the cutting unit related to contact between the cutting member and the counter-member; and determining maintenance work on the cutting unit in response to the value (Page 3, paragraph 47- paragraph 55).

17) A method as claimed in claim 1, wherein the characteristic quantity value (V) is determined during a first time interval (Fig. 8) and with a frequency given by a second time interval (Fig. 6).

18) A method as claimed in claim 17, wherein the first time interval is substantially 10 seconds, and the second time interval is substantially 10 minutes (Figs. 8, 6).

26) A method as claimed in claim 1, wherein the cutting unit (1) comprises a first drum (3) supporting a number of cutting members (10); and a second drum (7) cooperating with the first drum (3) and supporting a number of counter-members (11); each cutting member cooperating, in use, with a respective counter-member (Fig. 1, Pages 2-3, paragraphs 26 - 43).

27) A method as claimed in claim 26, wherein each value (V) of the characteristic quantity is determined as the total value over at least one complete turn of the drums (Page 3, paragraph 45-47).

28) A method as claimed in claim 26, wherein a corresponding intermediate value of the characteristic quantity is determined for each cutting member during one complete turn of the drums, and the value of the characteristic quantity is determined as the average of all the intermediate values (Figs. 8, 6).

29) A method as claimed in claim 28, wherein the intermediate values of the characteristic quantity are compared with one another to determine any inconsistency (Page 3, paragraph 54).

30) A method as claimed in claim 1, wherein the cutting member (10) is defined by a first blade, and the counter-member (11) is defined by a second blade (page 2, paragraph 33-37).

31) A method as claimed in claim 30, wherein, in use, the first and second blade slide one alongside the other to make a scissor cut (Page 2, paragraph 37).

32) A method as claimed in claim 30, wherein, in use, the first and second blade (10,11) cooperate end to end to make a nip-off cut (Page 3, paragraph 33).

Referring to claim 1, Tanaka teaches all of the limitations set forth above, however fails to teach the method being characterized by determining a first curve for extrapolating the time pattern of the characteristic quantity value and programming maintenance work on the cutting unit when the first curve is outside a given acceptance range. Referring to claims 2-5, 19-25, 33-38, 42-46, Tanaka teaches all of the limitations set forth above, however fails to teach the wherein the characteristic quantity is the energy produced by contact between the cutting member and the counter-member; wherein the time pattern of the vibration produced by contact between the cutting member and the counter-member (11) is determined; the energy produced by contact between the cutting member (10) and the counter-member (11) being determined as a function of the vibration produced by contact between the cutting member (10) and the counter-member; wherein the characteristic quantity is the force, stress, pressure, impact, or acceleration, with which the cutting member contacts the counter-member; wherein the characteristic quantity

is a measurement of the vibration produced by contact between the cutting member and the counter-member (11); wherein the first curve (14) is determined using only the characteristic quantity values (V) following previous maintenance work on the cutting unit; wherein performance of maintenance work on the cutting unit (1) is indicated by a step in the pattern of the characteristic quantity values (V); wherein performance of maintenance work on the cutting unit (1) is indicated by a step of a value greater than a given first threshold value in the pattern of the characteristic quantity values (V); wherein maintenance work on the cutting unit (1) is only actually programmed when the time lapse since previous maintenance work on the cutting unit exceeds a given second threshold value; wherein the second threshold value is fixed; wherein the second threshold value is variable; wherein the second threshold value equals a given fraction of the time lapse between the last and last but one maintenance work on the cutting unit; wherein maintenance work on the cutting unit (1) comprises adjusting the position of the cutting member (10) with respect to the counter-member (11); a control unit (13) making an automatic power adjustment of the position of the cutting member with respect to the counter-member (11), as a function of the first curve (14); wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of environmental and operating conditions of the cutting unit (1); wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of the operating temperature of the cutting unit (1); wherein, in determining the value (V) of the characteristic quantity of the cutting unit a compensation is made as a function of the operating speed of the cutting unit (1); wherein various operating characteristics of the cutting unit (1) are checked to determine any damage to the mechanical components of the cutting unit (1), and so

determine whether variations in the values (V) of the characteristic quantity are produced by actual wear of the cutting member (10) or by damage to the mechanical components of the cutting unit; wherein predictive maintenance parameters are used to improve design of the cutting unit, comprising, non-limitatively, the materials for cutting, and the form or profile or action of the cutting members.

However, referring to claim 1, Colding teaches determining a first curve for extrapolating the time pattern of a characteristic quantity value of a cutting unit (Col. 11, lines 41 – Col. 12, lines 33) and programming maintenance work on the cutting unit when the first curve is outside a given acceptance range (Col. 13, line 60 – Col. 14, line 39). Referring to claims 2-5, 19-25, 33-38, 42-46, Colding teaches wherein the characteristic quantity is the energy produced by contact between the cutting member and the counter-member (Abstract); wherein the time pattern of the vibration produced by contact between the cutting member and the counter-member (11) is determined; the energy produced by contact between the cutting member (10) and the counter-member (11) being determined as a function of the vibration produced by contact between the cutting member (10) and the counter-member (Col. 15, lines 13-62); wherein the characteristic quantity is the force, stress, pressure, impact, or acceleration, with which the cutting member contacts the counter-member (Abstract); wherein the characteristic quantity is a measurement of the vibration produced by contact between the cutting member and the counter-member (Abstract); wherein the first curve (14) is determined using only the characteristic quantity values (V) following previous maintenance work on the cutting unit (Col. 11, lines 41 – Col. 12, lines 33); wherein performance of maintenance work on the cutting unit (1) is indicated by a step in the pattern of the characteristic quantity values (Col. 13, line 60 – Col. 14, line 39); wherein

maintenance work on the cutting unit (1) is only actually programmed when the time lapse since previous maintenance work on the cutting unit exceeds a given second threshold value (Col. 13, line 60 – Col. 14, line 39); wherein the second threshold value is fixed (Col. 13, line 60 – Col. 14, line 39); wherein the second threshold value is variable (Col. 13, line 60 – Col. 14, line 39); wherein the second threshold value equals a given fraction of the time lapse between the last and last but one maintenance work on the cutting unit (Col. 13, line 60 – Col. 14, line 39); wherein maintenance work on the cutting unit (1) comprises adjusting the position of the cutting member (10) with respect to the counter-member (11); a control unit (13) making an automatic power adjustment of the position of the cutting member with respect to the counter-member (11), as a function of the first curve (Col. 13, line 60 – Col. 14, line 39; Col. 17, lines 22-49); wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of environmental and operating conditions of the cutting unit (Col. 13, line 60 – Col. 14, line 39; Col. 17, lines 22-49); wherein, in determining the value (V) of the characteristic quantity of the cutting unit (1), a compensation is made as a function of the operating temperature of the cutting unit (Col. 2, lines 19-24); wherein, in determining the value (V) of the characteristic quantity of the cutting unit a compensation is made as a function of the operating speed of the cutting unit (Col. 13, line 60 – Col. 14, line 39; Col. 17, lines 22-49); wherein various operating characteristics of the cutting unit (1) are checked to determine any damage to the mechanical components of the cutting unit (1), and so determine whether variations in the values (V) of the characteristic quantity are produced by actual wear of the cutting member (10) or by damage to the mechanical components of the cutting unit (Abstract; Col. 13, line 60 – Col. 14, line 39; Col. 17, lines 22-49); wherein predictive maintenance

parameters are used to improve design of the cutting unit, comprising, non-limitatively, the materials for cutting, and the form or profile or action of the cutting members (Col. 17, lines 22-49).

Tanaka and Colding are analogous art because they are from the same field of endeavor, cutting machine monitoring.

At time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Tanaka with the programmed maintenance of Colding.

The suggestion/motivation would have been because Colding teaches adaptive control of a cutting machine (Title) for adaptive control of cutting machining operations by using quantities measured during the machining and characteristic of the productivity optimizing of the machining operation (Col. 1, lines 10-30). Furthermore, Colding teaches tool life and productivity projections can be periodically confirmed by actual measurement of tool wear, and for measurement of tool life, the tool, remains in the tool holder and, since the measurement is automatically effected, it consumes a very short time interval (Col. 17, lines 4-20).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SPS

Sean P. Shechtman

September 16, 2007 9/16/07